

Recombinant SARS-CoV 2 Spike RBD_ A475V mFc-Chimera

Cat. No.	Ab-P0047	two subunits, S1 and S2. S1 mainly contains a receptor binding domain (RBD), which is responsible for recognizing the cell surface receptor. S2 contains basic elements needed for the membrane fusion.
Size	100 µg	
Host Species	Human	In previous studies, a number of potent monoclonal antibodies against SARS coronavirus (SARS-CoV) have been identified. These antibodies target more specifically the 193 amino acid length (N318-V510) receptor binding domain (RBD) within the S protein is the critical target for neutralizing antibodies. Some of the antibodies recognize different epitopes on RBD, for example the SARS-CoV neutralizing antibodies CR3014 and CR3022 bound noncompetitively to the SARS-CoV RBD and neutralized the virus in a synergistic fashion.
Expression Host	293F	
Protein construction	A DNA sequence encoding SARS-CoV-2 (2019-nCoV) spike protein (RBD) (YP_009724390.1) (Ser325-Lys529) substituted A475V fused with the Fc region of mouse IgG2a in C-terminus.	
Purity	>95% as determined by SDS-PAGE	Reference 1) Xialong Tian et al. (2020) Emerging Micorobes & Infections. Vol9 381 2) Meng Yuan et al. (2020) Science. 368:630
Formulation	0.22µm filtered solution in PBS pH7.4	
Storage	Store it under sterile condition at -70°C upon receiving. Recommend to aliquot the protein in to smaller quantities for storage. Avoid repeated freeze –thaw cycles.	
Molecular Mass	The recombinant SARS-CoV-2 (2019-nCoV) Spike Protein (RBD, mFc fusion) consists of 443 amino acids and predicts a molecular mass of 49.8 kDa.	

Background

The Spike protein (S) of and SL-CoVs, which is a type I transmembrane glycoprotein and mediates the entrance to human respiratory epithelial cells by interacting with cell surface receptor such as angiotensin-converting enzyme 2 (ACE2)

The Spike protein is a large type I transmembrane protein containing